Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by:Keith Metzker

General Information

Name:	CPS Corporation
Address:	701 Pennel Street, Henderson, Kentucky, 42420
Date application received:	December 14, 1997
SIC/Source description:	2754/Printing Commercial Gravure
AFS(10-digit) Plant ID:	21-101-00094
EIS #:	077-1760-0094
Application log number:	F480
Permit number:	V-98-016

Application Type/Permit Activity

[x] Initial issuance
[ ] Permit modification
__Administrative
__Minor
__Significant
[ ] Permit renewal

[ ] General permit
[ ] Conditional major
[x] Title V
[x] Synthetic minor
[x] Operating
[ ] Construction/operating

Compliance Summary

[ ] Source is out of compliance
[x] Compliance certification signed
[ ] Compliance schedule included

Applicable Requirements list

[ ] NSR
[ ] PSD
[ ] NSPS
[x] NESHAPS
[x] SIP
[x] Other

Miscellaneous

[ ] Acid rain source
[ ] Source subject to 112(r)
[x] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[x] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[x] Certified by responsible official
[x] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

Emissions Summary

Pollutant	Actual (tpy)	Potential (tpy)
PM	0.098	0.898
SO_2	0.012	0.038
NOx	1.95	8.98
CO	0.39	2.245
VOC	163.435	233.339
LEAD		
HAP $\geq$ 10 tpy (by CAS)		
111-90-0	unknown	77.5

Source Process Description:

The source consists of a 5 station Albert rotogravure printing press, a 6 station Albert rotogravure printing press, 3-4 station Cerutti rotogravure printing presses, and a 14.645 MM Btu/hr boiler. All presses are used in the production of gift wrap. The boiler provides space heat and dries the ink applied by the presses. There is no equipment for reduction of pollution.

The Albert presses run at 300 ft/min, use 40 in wide cylinders, and are designed for a maximum ink usage rate of 8.90 gal/hr. The Cerutti presses also use 40 in wide cylinders but they run at 600 ft/min and have a maximum ink usage rate of 17.80 gal/hr. The boiler provides heat through the combustion of natural gas. Pollution control is accomplished through the use of waterborne inks and natural gas.

Emission and Operating Caps description:

401 KAR 59:015 (KY regulation for new indirect heat exchangers) sets limits for sulfur dioxide and particulate emissions based on total heat input capacity. By using the appropriate equations (as given in the operating permit), particulate emissions are limited to 0.5119 lbs/MM Btu actual heat input and sulfur dioxide emissions are limited to 2.565 lbs/MM Btu actual heat input. Opacity limits are also set by 401 KAR 59:015. Opacity of visible emissions is limited to a maximum of 20% except for emissions occurring during cleaning of the fire box, blowing of soot, and building of a new fire (see permit for further details).

Waterborne inks whose volatile portion (water and VOC) consists of 25 percent or less VOC or which, excluding water, contain 60 percent or more (by volume) non-volatile material as applied to the substrate are required to be utilized in all printing units. This condition is a result of 401 KAR 59:212 (KY regulation for new grapic arts facilities using rotogravure and flexography) requirements.

By taking synthetic minor limitations to prevent applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality, CPS limits plant wide VOC emissions to less than 250 tons/yr. Since this limit is enforceable for any designation of a year (12 months, 52 weeks, 365 days, 8,760 hrs, 525,600 minutes, or even 31,536,000 seconds), practical emission limits with appropriate record keeping time frames must also be used by CPS. By keeping records of material usage on a weekly basis, CPS ensures plant wide VOC emissions to be less than 250 tons/yr if the weekly rolling year emission is no more than 233 tons/yr. The following limits have

been taken to make the limit enforceable as a practical matter. Total ink usage is limited to a maximum of 404,000 gallons per year @ a weekly average VOC content of no more than 1.00 pound per gallon. Solvents used in the printing process are limited to a maximum of 8,080 gallons per year @ a maximum VOC content of 6.90 pounds per gallon. Cleaning solution usage is limited to a maximum of 43,800 gallons per year @ a maximum VOC content of 0.15 pounds per gallon (if a cleaning solution has no VOC content, then it shall be exempt from this condition).

In order to avoid 8 hour record keeping requirements, CPS has agreed to isobutyl alcohol, monoethanolamine, and ammonia concentration limits in all inks, solvents, and cleaning solutions to satisfy emission limitations set by 401 KAR 63:022 (KY regulation for new or modified sources emitting toxic air pollutants). Plant wide emissions of isobutyl alcohol were modeled to have an allowable of 874.35 lbs/hr. By using inks, solvents, and cleaning solutions that have no more than 7.00 lbs/gal isobutyl alcohol content and maximum hourly design throughputs, compliance with the 874.35 lb/hr allowable emission limit can be reasonably assured. Similar methods and reasoning were used to establish the emission limits on ammonia and monoethanolamine. Plant wide allowable emission of ammonia is 26.46 lbs/hr which results in limiting ink ammonia content to 0.17 lbs/gal, solvent ammonia content to 0.00 lbs/gal, and cleaning solution ammonia content to 0.00 lbs/gal. The plant wide allowable emission of monoethanolamine is 33.19 lbs/hr which results in limiting ink monoethanolamine content to 0.45 lbs/gal, solvent monoethanolamine content to 0.00 lbs/gal, and cleaning solution monoethanolamine content to 0.15 lbs/gal.

Organic HAP emissions will be affected by 40 CFR Part 63, Subpart KK (National emission standards for the printing and publishing industry) requirements which will become effective on May 30, 1999. CPS Corporation plans to comply with requirements set by this regulation by using only materials that have no more than 4% by weight organic HAP content (as-purchased) in their printing.